



MCS Synchronous Servo Motor

MCS06F41-RS0P1

A matter of principle: the right products for every application.

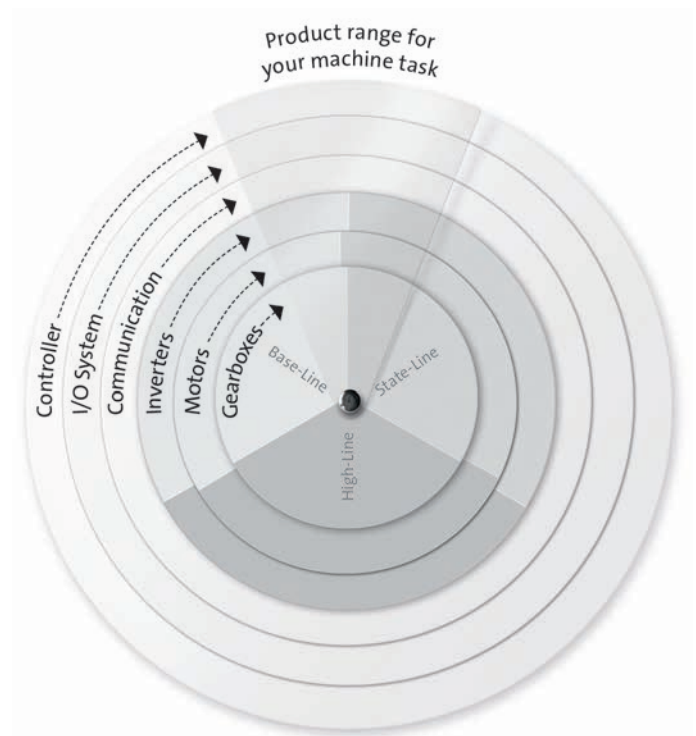
Lenze's extensive L-force product portfolio follows a very simple principle. The functions of our finely scaled products are assigned to the three lines Base-Line, State-Line or High-Line.

But what does this mean for you? It allows you to quickly recognise which products represent the best solution for your own specific requirements.

Powerful products with a major impact:

- Easy handling
- High quality and durability
- Reliable technologies in tune with the latest developments

Lenze products undergo the most stringent testing in our own laboratory. This allows us to ensure that you will receive consistently high quality and a long service life. In addition to this, five logistics centres ensure that the Lenze products you select are available for quick delivery anywhere across the globe. It's as easy as that!



Servo motors - dynamic and robust

With synchronous motors and asynchronous motors, our servo motors offer the right solution, even for highly dynamic, sensitive or compact applications. They are optimally designed for operation with our servo inverters.

Typical application fields

- Positioning
- Robotics
- Packaging technology
- Handling systems
- Environments where hygiene matters.
- And many more

Features

- Robust drive behavior
- Safe control behavior
- Optimal smooth running characteristic
- One Cable Technology (OCT)
- Easy mounting
- Low moments of inertia

The benefits for you

- Optimized for Lenze servo inverters
- Easy mounting
- Highly dynamic, sensitive or compact application areas
- Precise and robust requirements
- High operational reliability
- Solutions for heavy motor loads

Features at a glance

Robust behavior



High degree of protection and/or smooth surfaces enable operation in harsh environments.

Drives with a protection class of up to IP65 can be used there.

Safely controlled



The servo motors are perfectly matched to the i750 cabinet and i950 cabinet servo inverters.

With these servo inverters, the servo motor is safely controlled in every operating state. Both components can be easily adapted to the application using the inverter's auto-tuning function.

Optimal concentricity



Very smooth running characteristics of the servo motors lead to optimal work results.

For example, a film can be processed safely and continuously.

One Cable Technology (OCT)



The MCS and m850 servo synchronous motors are equipped with a digital absolute value encoder (HIPERFACE-DSL®) as standard.

This makes wiring easier and reduces the costs.

Easy to mount



The servo motors are equipped with commercially available connectors as standard.

The bayonet lock enables quick and secure installation. This also enables very short machine down-times when servicing is required.

Low mass inertia





The internal design of the rotors serves the dynamic and precise requirements of the machine.

The materials used ensure precise operation with a low mass moment of inertia.

Servo motors

Is your application dynamic and demanding? With synchronous motors and asynchronous motors, our servo motors offer the right solution, even for highly dynamic, sensitive or compact applications. They are optimally designed for operation with our servo inverters.

You can easily call up a lot of information online when selecting a product:

- Use the EASY Product Finder to configure your required version of the product in next to no time (simply click on the  icon).
- For further technical details such as data sheets, CAD data or EPLAN data, please contact our support team simply click on the  icon).



Product overview

	MCS synchronous servo motor	m850 synchronous servo motor	SDSGA asynchronous servo motor	MCA asynchronous servo motor	MQA asynchronous servo motor
					
Degree of protection	IP5, IP65	IP54, IP65	IP54	IP23s, IP54, IP65	IP23s

Power range

	MCS	m850	SDSGA	MCA	MQA
Standstill torque	0.8 ... 86 Nm	0.18 ... 67 Nm	0.3 ... 2.2 Nm	2.3 ... 290 Nm	76 ... 325 Nm
Rated torque	0.5 ... 72 Nm	0.12 ... 35 Nm	0.27 ... 1.9 Nm	2.0 ... 280 Nm	66.2 ... 296 Nm
Rated speed	1050 ... 6000 1/min	2520 ... 9000 1/min	2700 ... 2825 1/min	550 ... 4160 1/min	550 ... 2935 1/min
Max. torque	2.4 ... 190 Nm	0.7 ... 200 Nm	1.0 ... 8.0 Nm	10 ... 1100 Nm	250 ... 1100 Nm
Power range	0.31 ... 15.8 kW	0.11 ... 9.2 kW	0,075 ... 0.6 kW	0.8 ... 53.8 kW	10.6 ... 60.2 kW

Feedback

	MCS	m850	SDSGA	MCA	MQA
Digital absolute value encoder One Cable Technology (OCT)	✓	✓	-	-	-
Resolver	✓	✓	✓	✓	✓
Resolver for functional safety	✓	✓	-	✓	✓
TTL incremental encoder	✓	-	-	✓	✓
SinCos absolute value encoder	✓	✓	✓	✓	✓
SinCos absolute value encoder for functional safety	✓	✓	-	-	-

Market approvals

	MCS	m850	SDSGA	MCA	MQA
CE	✓	✓	✓	✓	✓
UKCA	✓	✓	✓	✓	✓
UL	✓	✓	✓	✓	✓
CSA	✓	✓	✓	✓	✓
CCC	✓	✓	✓	✓	✓
RoHs	✓	✓	✓	✓	✓

Offers top performance in the tightest of spaces.



Servo synchronous motor for precisely controlled motion.

**Torque range:
0.5 to 72 Nm (0.25 to 15.8 kW)**

Ideally suited to: applications that require high dynamic performance, precision and compact dimensions.

Features

- Compact dimensions for installation in the tightest of spaces
- Low moments of inertia for high dynamic performance
- Plug-in connections for fast, easy installation and easy servicing
- Resolver as feedback. Alternatively: incremental encoder or absolute value encoder

MCS synchronous servo motor technology – An overview

Technical data

Self-ventilated

Size		06		09		12		14		19	
Rated torque	M [Nm]	0.5	0.6	1.8	2.3	4.3	24.6	5.5	7.5	9.2	21
		0.9	1.2	2.4	3.1	7.5	17.0	10	14	16	29
		1.2	1.5	3.0	3.8	11		13.5	17.2	23	32
				3.6	4.5				21	30	
Rated current	I [A]	2.4	1.3	3.8	2.3	4.5	2.6	7.5	4.5	14	8.6
		2.5	1.5	4.5	2.5	5.7	3.8	11.9	6.6	18.5	12.3
		2.9	1.6	6.0	3.4	10.2	5.9	15	9.7	19	14.3
				6.9	4.2			15.6	10.8		
Rated speed	n [rpm]	6000	4050	6000	4050	4050	1950	3600	1500	3000	1425
		6000	4050	6000	3750	3525	1500	3225	1500	3000	1425
		6000	4050	6000	4050	4050	1950	3225	1500	3000	1425
				5100	4050			3225	1350		

Forced-ventilated

Size		12		14		19	
Rated torque	M [Nm]	6	7	10.5	12	32.5	38
		10.5	12	20.5	23.5	50.5	62.5
		14	17	25.5	30.5	53	72
				33	42		
Rated current	I [A]	5,6	3	9.7	5.4	20.1	11.3
		7.5	4.3	15	8.3	31	18.3
		11,7	7.2	20.8	11.8	29.5	21.3
				21.9	13.4		
Rated speed	n [rpm]	3525	1650	3000	1350	2850	1200
		3375	1350	2775	1200	2850	1200
		3900	1650	3000	1350	2850	1200
				2625	1050		

The modular system for your application

Thanks to their scalable modular design, the synchronous servo motors are ideal for use with any application:

- Brake attachments
 - with and without permanent magnet brake
- Feedback systems
 - Resolver
 - Incremental encoder
 - Absolute value encoder
- Self-ventilated or forced-ventilated
- Connection options
 - Plug connectors
 - Terminal box
- Temperature monitoring via KTY thermal sensor
- Comprehensive range of system cables
 - Motor connection
 - Feedback connection
 - Separate fan connection

Other properties

Degree of protection	
EN 60529	IP54/65
Approvals	
	cURus, UkrSepro
Temperature class	
IEC / EN 60034-1 utilisation	F
IEC / EN 60034-1 insulation system	H
Climatic conditions	
Storage temperature	-30°C to +60°C
Operating temperature	-20°C to +40°C

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